UNDERSTANDING RISK

Pankaj Vajpayee

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OCTOBER 6, 1973

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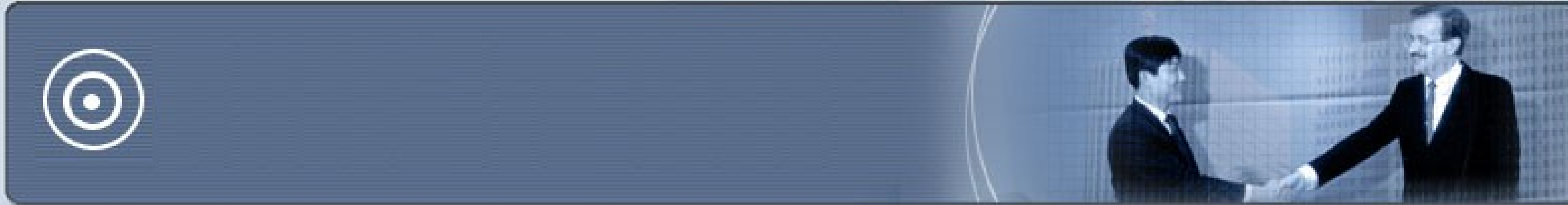

YOM KIPPUR WAR

EGYPTIAN AND SYRIAN ARMED FORCES INVADED ISRAEL

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YOM KIPPUR WAR

Ten days later OPEC used “OIL WEAPON” for the first time

OIL went from \$2/b in September to \$11.65/b by December.

The first “OIL CRISIS” was upon us

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OPEC OIL EMBARGO HAD LITTLE TO DO WITH PRICE RISE

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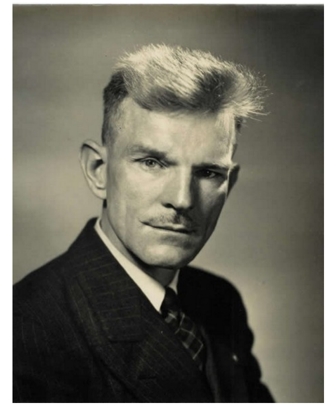
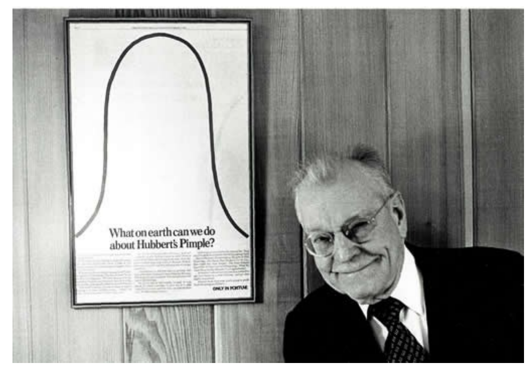
MAKING OF A CRISIS

- In 1956 King Hubbert former professor at Columbia University and scientist at Shell Company had predicted that US will peak as oil producer by the early 1970’s
- By 1970 US was pumping 9.6m barrels of oil/day. Saudi was producing less than half
- By 1973 oil supplies peaked and by 1981 US was pumping 1/3 rd less in 48 states





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OIL CRISIS 2004

- Oil crossed $40/barrel for the first time in decades
- It was under $10/barrel six years earlier
- Sept. 2004- Oil touched $50/b
- US & Asian economies were growing faster than anytime in the last 15 years

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OIL CRISIS

INTERNATIONAL ENERGY AGENCY OCTOBER 2004 UPDATE

- SUPPLIES : 83.2m barrels/day and declining
- DEMAND : 82.5m barrels/day and rising

IEA forecast in 2007 says Oil supply looks tight than ever before in the next 5 years

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OIL CRISIS 2008

- Oil touched $147/barrel for the first time
- Oil retraced back to under $60/ barrel (almost 60% drop)
- US & Asian economies are facing a possible recession.

Prices remain very volatile, with unprecedented daily swings. Investment in oil refining capacity to be hit and oil likely to cross $100 / barrel.

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NEED TO MANAGE COMMODITY RISK

- Significant, sometimes abrupt changes in supply and demand and pricing have touched many of the commodity markets during the past three decades, especially those for energy
- International Politics, war, changing economic patterns and structural changes within energy markets have created considerable uncertainty as to the future direction of market conditions
- Uncertainty leads to market volatility and the need for an effective means to hedge the risk of adverse price exposure

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EMERGENCE AND GROWTH OF DERIVATIVE MARKETS

- Exponential Growth of the Derivatives Market post 1970

- Key Economic and Technological Factors
  - Breakdown of the Bretton Woods System
  - Oil price shocks of 1973
  - Excess government spending and high inflation in USA in 1970's
  - Exponential Increase in World Trade, Capital Flows and dismantling of Tariff barriers
  - Technological innovations like advancement in communication and information technologies enabled effective implementation of derivatives

What is Risk?

- Risk, in traditional terms, is viewed as a ‘negative’. Webster’s dictionary, for instance, defines risk as “exposing to danger or hazard”.

- The Chinese give a much better description of risk
  - The first is the symbol for “danger”, while
  - The second is the symbol for “opportunity”, making risk a mix of danger and opportunity.

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Risk Management

Risk management is present in all aspects of life; It is about the everyday trade-off between an expected reward an a potential danger. In the business world, we often associate risk with some variability in financial outcomes. However, the notion of risk is much larger. It is universal, in the sense that it refers to human behaviour in the decision making process. Risk management is an attempt to identify, to measure, to monitor and to manage uncertainty.

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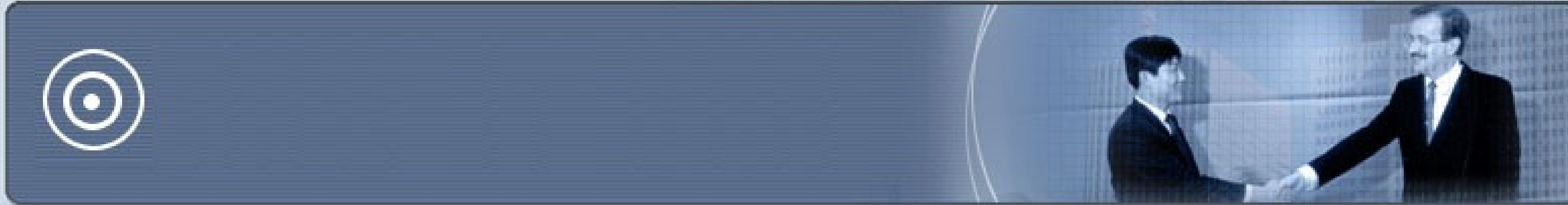
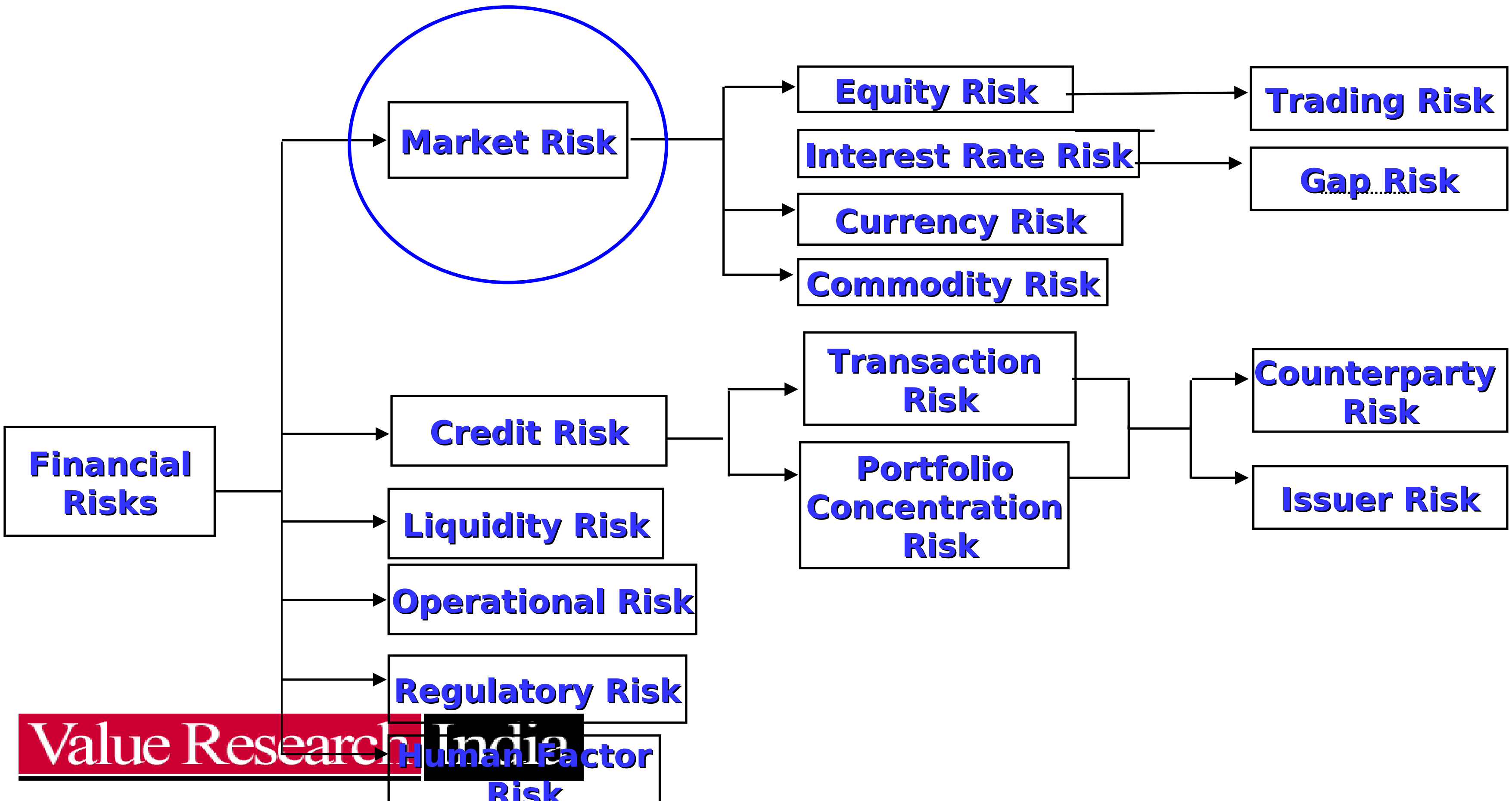
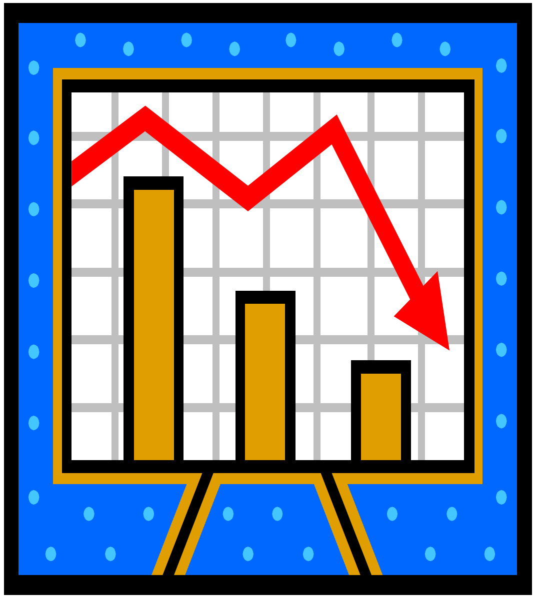


Types of financial risk



Understanding Market Risk

It is the risk that the value of on and off-balance sheet positions of a financial institution will be adversely affected by movements in market rates or prices such as interest rates foreign exchange rates equity prices credit spreads and/or commodity prices resulting in a loss to earnings and capital.



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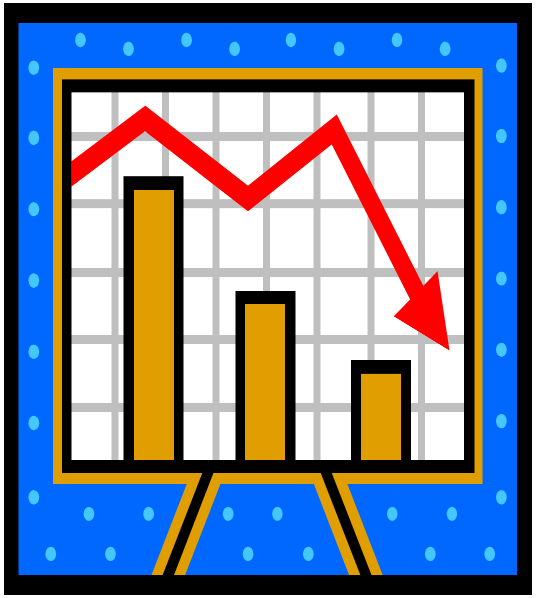
Why the focus on Market Risk Management ?

- Convergence of Economies
- Easy and faster flow of information
- Skill Enhancement
- Increasing Market activity

Leading to

- Increased Volatility
- Need for measuring and managing market Risks
- Regulatory focus
- Profiting from Risk



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THANK YOU

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